

TEXAS
NATURAL
RESOURCE
CONSERVATION
COMMISSION



1996
ANNUAL
REPORT

OUR MISSION

The Texas Natural Resource Conservation Commission strives to protect our state's precious human and natural resources consistent with sustainable economic development. Our goal is clean air, clean water, and safe management of waste with an emphasis on pollution prevention. We are committed to providing efficient, prompt, and courteous service to the people of Texas, ever mindful that our decisions must be based on common sense, good science, and fiscal responsibility.

FROM THE COMMISSION

In the three busy years since it was formed, the Texas Natural Resource Conservation Commission (TNRCC) has begun to fulfill the promise of its mission. Over the past year, we have made giant strides in achieving our goals of clean air, clean water, and safe management of waste. We also encourage pollution prevention and recycling and foster innovative compliance and enforcement efforts that have steered Texas businesses toward cost-effective environmental performance.

There is a growing recognition, however, that the magnitude of the challenges Texas faces in environmental stewardship—such as securing adequate water supplies for future generations and pollution cleanup—require widespread support and participation. To this end, we have invited others to help us find solutions. Public participation is a key component of TNRCC rule development, enforcement actions, and pollution prevention programs. Through our Office of Public Assistance and the Alternative Dispute Resolution Office, we have increased access and empowered citizens to get involved and make meaningful contributions to the regulatory process. These accomplishments underscore the TNRCC commitment to Governor George W. Bush's principles of sound governance, including limited and efficient government, local control, and personal responsibility.

The principles of sound governance are also evident in the TNRCC's recent improvements of regulatory efforts. Working closely with corporations and industry, we are demonstrating that environmental protection is good business. We are providing technical assistance that encourages the use of the latest technologies and environmental management practices. In the year just ended, TNRCC pollution prevention programs helped facilities save more than \$20 million, while reducing the generation of hazardous waste by 31,000 tons and of volatile organic compounds and ozone-depleting compounds by 73.5 tons.

In a challenging year, the hard work of the TNRCC staff has produced significant results in a number of areas: the Voluntary Cleanup Program, flexible air permitting, the Environmental Audit Program, the Texas Risk Reduction Rules, delegation of the federal Clean Air Act Title V Interim Operating Permits Program, the Small Business Assistance Program, Border Affairs, and Pollution Prevention and Recycling. Accomplishments in these and other areas enable the commission to provide more effective protection of the state's natural resources for current and future generations of Texans.


Barry R. McBee, Chairman


R. B. "Ralph" Marquez, Commissioner


John M. Baker, Commissioner

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SETTING A STANDARD FOR ENVIRONMENTAL AND ECONOMIC STEWARDSHIP

The TNRCC has evolved from a classic regulatory bureaucracy with an emphasis on rigid, prescriptive requirements to a service-oriented agency that seeks partnerships to provide environmental protection with business, industry, government, and communities.

The TNRCC's encouragement of voluntary compliance with environmental regulations and standards, however, is tempered by an absolute commitment to enforcement and ensuring compliance with all state and federal laws. Effective enforcement protects citizens and provides a level playing field for all Texas businesses.

STATE OF THE TEXAS ENVIRONMENT

THE QUALITY OF WATER IN TEXAS

Improvements in water quality have been gradual but substantial in Texas, as evidenced by long-term trends. Since 1982, the daily statewide discharge of organic wastes

AVERAGE CONCENTRATIONS* OF DISSOLVED OXYGEN IN MAJOR RIVERS OF THE STATE NEAR URBAN AREAS		
	1982-1985	1992-1995
Sabine River near Longview	6.6	7.5
Neches River near Tyler	4.5	4.8
Neches River near Beaumont-Port Arthur	6.1	6.9
Trinity River near Dallas-Fort Worth	6.2	7.8
East Fork Trinity River near Dallas-Fort Worth	5.0	7.1
Houston Ship Channel/Buffalo Bayou near Houston	2.5	4.1
Colorado River near Austin	8.1	8.8
San Antonio River near San Antonio	5.7	8.3
*Measured in milligrams / liter.		

Increased levels of dissolved oxygen, which are essential for supporting aquatic life, demonstrate improvements in the state's major rivers.

of assessed streams and rivers in Texas fully support uses for aquatic life. Likewise, approximately 72 percent of assessed streams and rivers fully support contact recreation uses.

Texas is blessed with 40,000 miles of constantly flowing streams and rivers, second only to Alaska. In addition, the state is dotted with 5,700 reservoirs. Approximately 91 percent of assessed reservoirs fully support aquatic-life uses while 97 percent of those

(oxygen-depleting compounds) from municipal treatment facilities has been reduced from 270,000 to 76,000 pounds, a 72 percent reduction. This has occurred in spite of population growth in Texas that averages almost twice the national rate from 15 million in 1982 to more than 18 million today.

Statewide data compiled for the 1996 Texas Water Quality Inventory indicate that approximately 90 percent

assessed support contact recreation uses. All assessed public water-supply reservoirs meet requirements for drinking-water quality.

Texas is also home to two of the nation's 28 national estuary programs. The Corpus Christi and Galveston Bay estuary programs unite councils of government, river authorities, local governments, and public interest groups in finding long-term solutions to protection of these water bodies. In all, Texas has 44 bays and nine estuaries, of which approximately 94 percent support aquatic life uses and more than 99 percent support contact recreation.

THE QUALITY OF AIR IN TEXAS

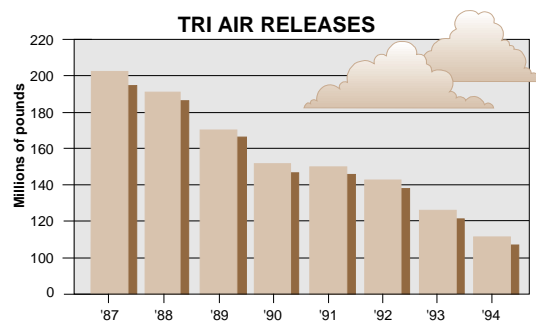
Air quality across Texas continues to improve. Toxic emissions have steadily decreased by 43 percent over the past decade—despite substantial growth in the state's population and economy.

While Texas has four urban areas that do not meet federal clean air standards for ozone, improvements in all four areas are pronounced. Both the Dallas and Houston areas have shown a steady overall decline in the number of days when the ozone standard has been exceeded.

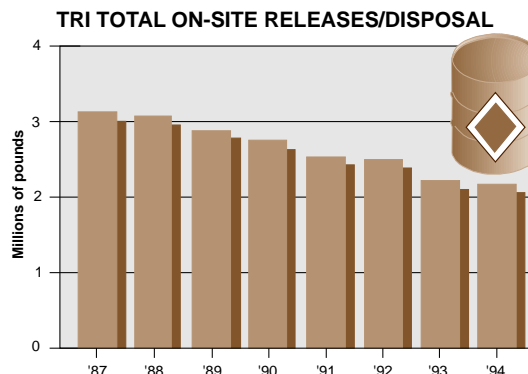
In El Paso, a major lead emissions problem has been resolved, resulting in a sharp decline in lead levels in that border community. From a peak of 6.5 micrograms of lead per cubic meter in 1984, the quarterly lead average has plummeted to 1 microgram/cubic meter. The national ambient air quality standard for lead is 1.5.

Texas has one of the most extensive networks of stationary air monitoring sites in the country. More than 90 sites are set up in 30 cities across the state collecting data on ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, lead, respirable particulate matter, and toxic air pollutants. These stationary sites are being upgraded and tied into a computer system that will allow for around-the-clock instantaneous readings of pollutants such as ozone. In all, almost 700,000 hours of monitoring was conducted at the stationary sites this past year, with an additional 20,000 hours of monitoring analysis conducted by staff in mobile monitoring vans. Most of the mobile monitoring is part of the agency's enforcement efforts and response to citizen complaints.

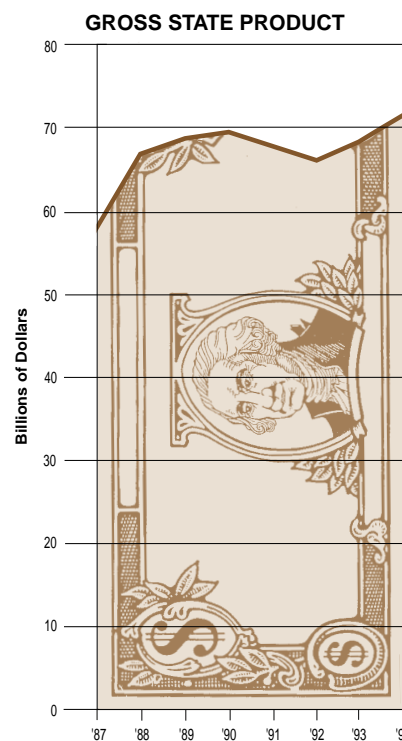
The TNRCC is also working to keep smog under control in growing, medium-sized Texas cities. In 1996, the TNRCC and EPA approved Flexible Attainment Region (FAR) status for the Corpus Christi and Longview-Marshall-Tyler areas. These customized ozone prevention



From 1987 to 1994, Texas manufacturers reduced Toxics Release Inventory (TRI) air releases by 43 percent. The TRI showed that air releases dropped from about 206 million pounds in 1987 to less than 117 million pounds in 1994.



In 1987, 1,200 companies reported releases or disposal of 312 million pounds of TRI chemicals. By 1994, that figure had been slashed to 214 million pounds.



The decrease in TRI air and waste releases is especially impressive because it coincides with a 21 percent increase in economic activity among Texas manufacturers, reflected in the rise in the gross state product.

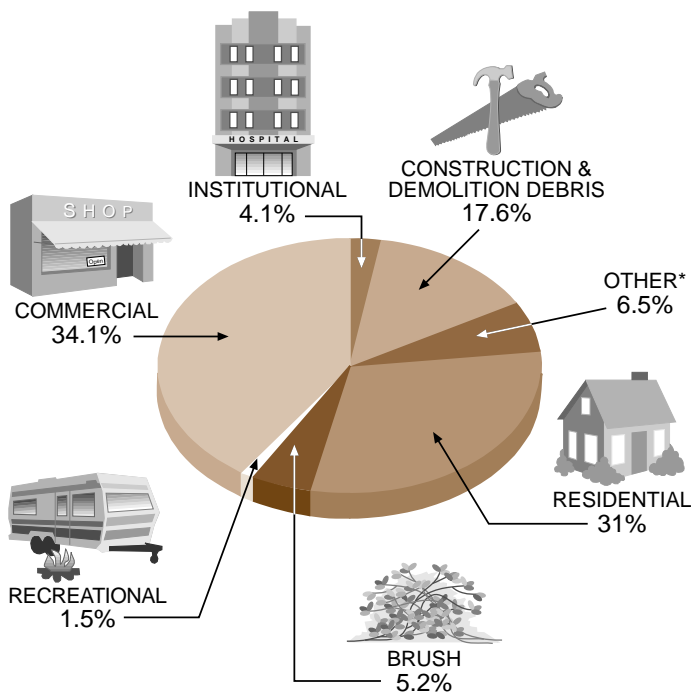
strategies were only the second and third FARs, respectively, in the nation and will enhance the ability of the two areas to maintain compliance with the national ozone standard through voluntary measures. Corpus Christi, for example, is implementing measures to reduce emissions from the loading and unloading of marine tankers.

MANAGING AND CUTTING WASTE IN TEXAS

As the second most populous state, and one of the most industrialized, Texas has been motivated to step to the forefront in the management, reduction, and recycling of wastes.

With one of the most aggressive statewide pollution reduction programs in the nation leading the charge, Texas manufacturers reduced the overall Toxics Release Inventory (TRI) of emissions and releases by nearly a third and recorded seven straight years of pollution reductions from 1987 to 1994.

**WASTE DISPOSAL BY SOURCE IN
MUNICIPAL SOLID WASTE (MSW) LANDFILLS IN TEXAS,
1994**



Individuals and families accounted for a large portion of solid waste sent to municipal landfills. In 1994, households generated nearly one-third of all solid waste entering MSW landfills in the state. Also, multifamily (apartment) waste collected by private haulers made up a substantial portion of the commercial waste category.

Source: TNRCC annual MSW facility reports.

*Includes industrial waste and waste requiring special handling (such as incinerator ash).

Likewise, Texas has embarked on a massive campaign to reduce the amount of waste going to landfills. In 1995, the TNRCC launched the most ambitious voluntary commercial recycling program in state history. Participating businesses are pledging to reduce disposal of paper and other nonhazardous waste by 75 percent by the year 2000.

This reduction should bode well for the state's 257 municipal landfills, which at the end of 1994 were receiving 22 million tons of waste annually. Current projections indicate 22 years of disposal capacity overall for the state, with all regions having at least 10 years of capacity.

SHARING ENVIRONMENTAL RESPONSIBILITIES ON THE BORDER

The TNRCC has placed a priority on binational and multistate cooperation for pollution reduction and assistance programs along the U.S.-Mexico border:

- The TNRCC coordinates the Texas Small Towns Environment Program, which combines the efforts of the TNRCC and other state agencies to support communities that seek to develop and use their own resources to solve water and wastewater problems at lower cost. The

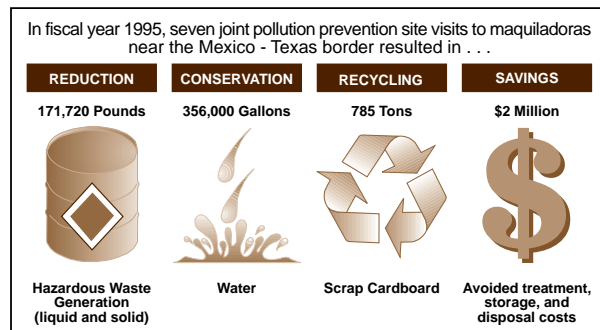
program is one of the ways the TNRCC is helping achieve environmental improvements in the colonias—low-income communities lacking infrastructure such as basic water and sewer services.

■ The Rio Grande Alliance, created in April 1995 with EPA funding, has improved communication and coordination among state and federal agencies, Native American tribes and pueblos, and groups in Texas, New Mexico, Colorado, and Mexico concerned with the Rio Grande basin.

■ The TNRCC also is participating in the Joint Advisory Committee for the Improvement of Air Quality for El Paso/Juárez/Doña Ana County.

This citizen-based initiative develops recommendations on joint projects and air quality control strategies for the region.

■ During the past three years, more than 400 maquiladoras (Mexican factories established near the northern international border by companies from the United States and other nations) and their U.S. parent companies have participated in the TNRCC's Maquiladora Waste Program for conservation, recycling, and pollution abatement.



ENFORCEMENT: PROTECTING OUR COMMUNITIES AND THE ENVIRONMENT

While the TNRCC promotes voluntary compliance and partnerships with the regulated community, the agency is committed to strict, sure, and just enforcement of the law when companies, governments, and individuals do not comply.

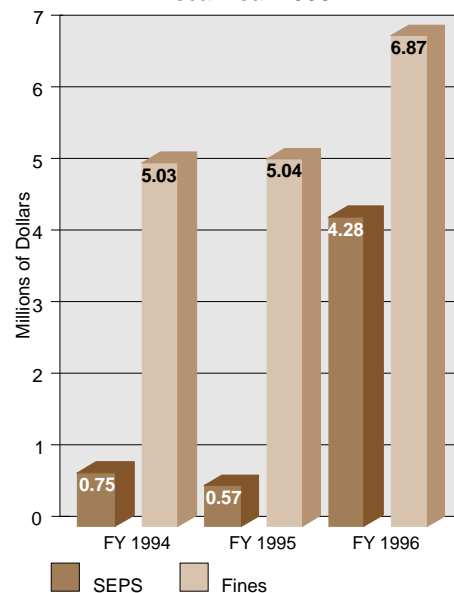
During the last year, the agency imposed more than \$11 million in fines and Supplemental Environmental Projects (SEPs) against nearly 700 violators—the highest annual total thus far for the TNRCC and its two predecessor agencies (the Texas Water Commission and Texas Air Control Board). SEPs are initiatives designed to send penalty dollars directly into community environmental projects.

The agency's enforcement philosophy to encourage compliance through technical assistance and special programs is having across-the-board success:

■ Air statistics compiled in 1996 indicate that 84 percent of inspected facilities are in compliance, which represents a 12 percent increase in compliant facilities since 1993.

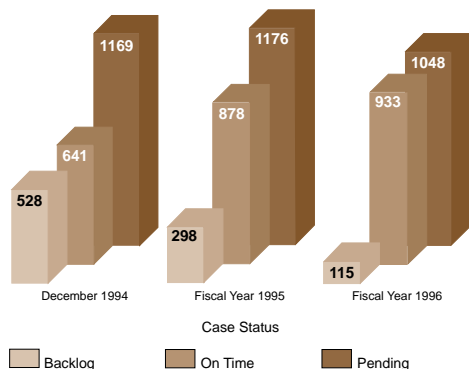
■ Three years ago, more than 600 public water supply systems failed to comply consistently with monthly microbiological sampling requirements. Following an enforcement initiative and the implementation of tougher standards, the number of noncompliant systems has fallen to about 70 per year.

FINES AND SUPPLEMENTAL ENVIRONMENTAL PROJECTS (SEPs)
Fiscal Year 1996



In the last year, the TNRCC levied the largest number and amount of fines and SEPs in the agency's history. The total penalties (fines plus SEPs) nearly doubled from 1995 to 1996.

ENFORCEMENT BACKLOG DISTRIBUTION Case Numbers



The agency finalized its assessment of backlogged enforcement cases in December 1994. Initially, there were 528 cases, or 45 percent of the total caseload backlogged. By the end of fiscal year 1996, the backlog had been reduced to about 10 percent.

■ In the petroleum storage tank area, \$1.06 million in penalties were assessed in fiscal year 1996. The agency also shut down underground storage tanks at nine facilities around the state that did not respond to warnings about noncompliance.

ENFORCEMENT BACKLOGS DOWN

In December 1994, the TNRCC made a commitment to cut the number of backlogged enforcement cases. At that time, 528 cases out of a total caseload of 1,169, or 45 percent, were backlogged. By July 31, 1996, the agency-wide rate had been reduced to about 10 percent.

SEPS: COMMONSENSE ALTERNATIVES

As indicated, one of the most promising options in the TNRCC's enforcement arsenal is the Supplemental Environmental Project. SEPs allow funds that would otherwise have been paid as a penalty to be used to help remedy environmental problems in a community or area where the violations have occurred. The TNRCC approved 11 SEPs in fiscal year 1996, compared to five in 1995 and six in 1994.

The following example illustrates how SEPs work. An international chemical corporation with facilities on the Texas Gulf Coast was cited for failure to implement various required air monitoring, calibration, and control requirements. The penalty in this case totaled \$192,250; however, in lieu of a portion of the fine, the TNRCC allowed the corporation to contribute \$96,125 to the Nature Conservancy's Galveston Bay Prairie Preserve Project. The project is enhancing and restoring coastal tallgrass prairies, a critical habitat for the Attwater's prairie chicken, one of the most endangered birds in North America.

The TNRCC has worked hard to reduce permit backlogs over the past year. The air permit backlog, which was as high as 375 during the previous fiscal year, has been completely eliminated. Backlogs have also been eliminated for wastewater and sewage sludge permits.

A FLEXIBLE, SIMPLIFIED APPROACH TO PERMITTING

The TNRCC has improved the permitting process with an emphasis on flexibility, streamlining, regulatory reform, reductions in backlogs, and faster turnaround.

INCREASING REGULATORY FLEXIBILITY

In an effort to allow the regulated community greater flexibility in achieving compliance without weakening environmental standards, the agency has implemented a number of changes, including the introduction of new, performance-based standards and adaptable, broad-based rules.

Eleven “flexible” air permits have been issued by the agency. The companies involved made binding commitments to reduce 116 million pounds of emissions annually in return for operational flexibility. These same rules allow a company to make permit and equipment changes with reduced processing as long as total emissions at the facility remain below allowable levels.

AVERAGE TIME REQUIRED TO PROCESS A PERMIT			
PERMIT TYPE	FISCAL YEAR 1995	FISCAL YEAR 1996	REDUCTION PERCENTAGE
Air	5.6 Months	3.8 Months	25%
Industrial Hazardous Waste	65 Months	33 Months	49%
Municipal Solid Waste	24 Months	15 Months	37%

The TNRCC has cut the time required to process permits in all programs. The average processing time for solid waste permits has been reduced by nine months, while the processing time for industrial hazardous waste has been more than halved.

Flexibility has also been applied to state regulations affecting municipal solid waste management facilities. Many landfills in Texas have closed in recent years due to increased federal requirements. The result has been fewer approved disposal or processing facilities and consequently higher transportation costs for waste disposal. In an effort to alleviate some of this burden on local communities, the TNRCC has adopted rules that encourage the development of transfer stations by reducing costs associated with application preparation and processing.

Likewise, industrial and hazardous waste permit holders have been given more flexibility in meeting performance standards, rather than being given specific requirements in individual permits. This change will result in broader permit requirements and fewer permit changes, saving time and money for both the regulated community and the state, while maintaining necessary environmental safeguards.

STREAMLINING REQUIREMENTS

To support the goal of limited and efficient government, the TNRCC has implemented streamlining efforts to eliminate inconsistent, duplicative, and overly bureaucratic requirements.

One of the most successful efforts is the agency’s implementation of a new legislative initiative on air permits that allows facilities to make certain minor modifications without first obtaining a permit amendment. Consequently, the number of amendments dropped 16 percent, saving significant time and money for permittees and the agency.

Additionally, the agency has simplified air permit renewals by reducing review requirements for businesses that have demonstrated compliance. This change has simplified renewals in almost all cases (approximately 360 per year) by reducing preparation and review time.

The TNRCC also has adopted new rules to allow for permits-by-rule for certain types of wastewater discharges. Permits-by-rule establish general criteria for a set of operating conditions so that businesses can receive a permit by meeting the criteria rather than going through the formal permitting process.

Privatization is yet another agency effort at streamlining. The TNRCC's Petroleum Storage Tank Program has contracted with a private firm to review assessment reports on sites where leaks have occurred. The privatization of these reviews has extended staff resources and helped the agency meet its legislative mandate to review all plans within 30 days or less. This enables faster cleanup and quicker reimbursements once cleanups have been completed.

EXPANDING OUTREACH EFFORTS

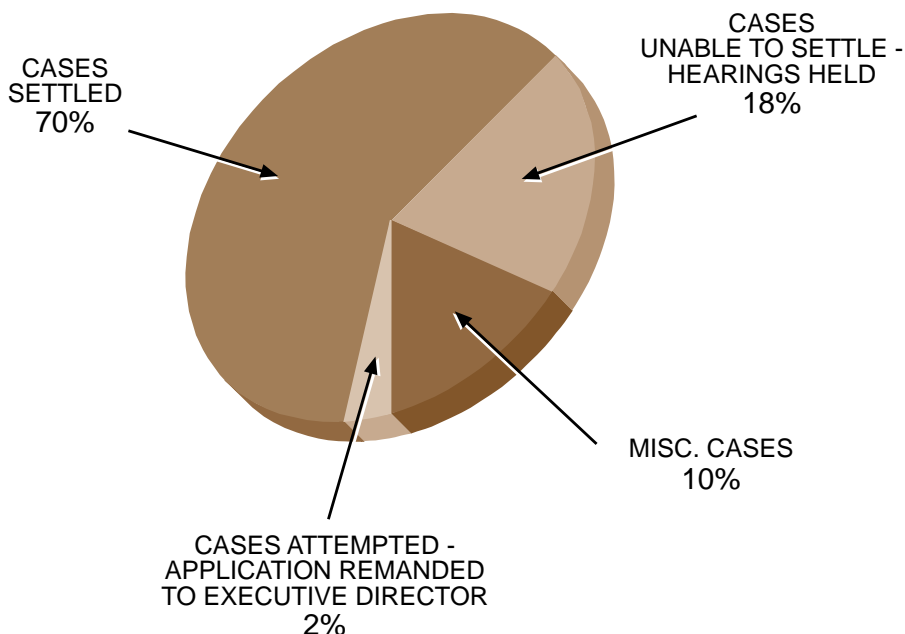
The TNRCC has expanded its efforts to give customers and the public improved access and information related to the permit application process. In April 1996, the commissioners adopted a resolution that renewed the agency's commitment to working with the Office of

the Public Interest Counsel, expanding the agency's use of alternative dispute resolution to avoid lengthy contested case hearings, ensuring the development of improved policies and rules about public notice of meetings and hearings, and ensuring public access to all public records and documents to the full extent allowed by law.

The Office of Public Assistance has been established to provide a central point of contact for the public on permit-related questions. The office serves the public with staff highly skilled in communicating sometimes difficult information, thus freeing other technical staff to manage permit and enforcement

workloads with greater efficiency. Additionally, the OPA's Environmental Equity Section helps assure that all citizens have equal access to and receive equitable benefits from the state's environmental regulatory system. To ensure ease of access for the public, the OPA provides a toll-free number: **1-800-687-4040**.

**DISPOSITION OF CASES REFERRED TO
ALTERNATIVE DISPUTE RESOLUTION**
FISCAL YEAR 1996



Alternative dispute resolution helps parties involved in a contested case to resolve their disputes informally with procedures such as mediation.

HELPING TEXANS COMPLY WITH ENVIRONMENTAL LAWS AND REGULATIONS

The TNRCC continually seeks more effective, less expensive methods of achieving better environmental results.

This effort was exemplified in a rule change made in 1996. The agency removed a permitting requirement for the thousands of businesses that print T-shirts, hats, and other products because the emissions they generate are insignificant and pose no health risk. As a result, approximately 500 large screen printers will save between \$2.5 million and \$6 million annually in permitting, consulting, and modeling costs.

REGULATORY REFORM

At the beginning of fiscal year 1996, the TNRCC began a major regulatory reform effort. In partnership with the regulated community, the agency has identified opportunities to simplify, streamline, and add flexibility to rules and practices, and many changes have been implemented.

For instance, the agency's procedural rules have been reviewed and consolidated in an ongoing effort that reduced the number of pages of affected regulations by 31 percent.

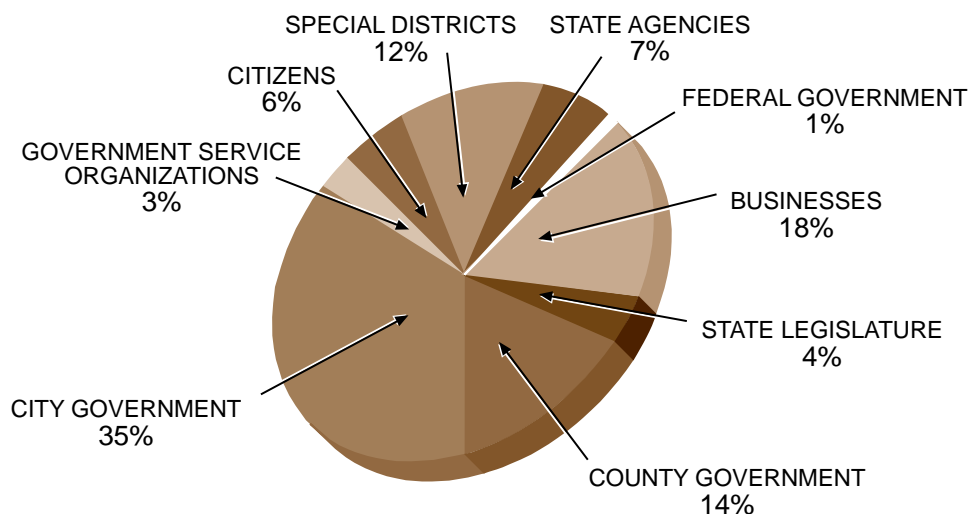
SIMPLIFIED REPORTING

The TNRCC is also updating and consolidating its databases to improve reporting and dissemination of environmental data. Under development is a comprehensive system to collect and provide accurate air, water, and waste management information in an efficient, timely, and understandable manner via the Internet, as well as through an improved agency records library system.

The agency has streamlined, eliminated duplication, and reduced reporting requirements in a variety of programs. Also, by simplifying and redesigning data management systems, the agency anticipates greater productivity, accuracy, reusability,

LOCAL GOVERNMENT ASSISTANCE OFFICE REQUESTS FOR ASSISTANCE

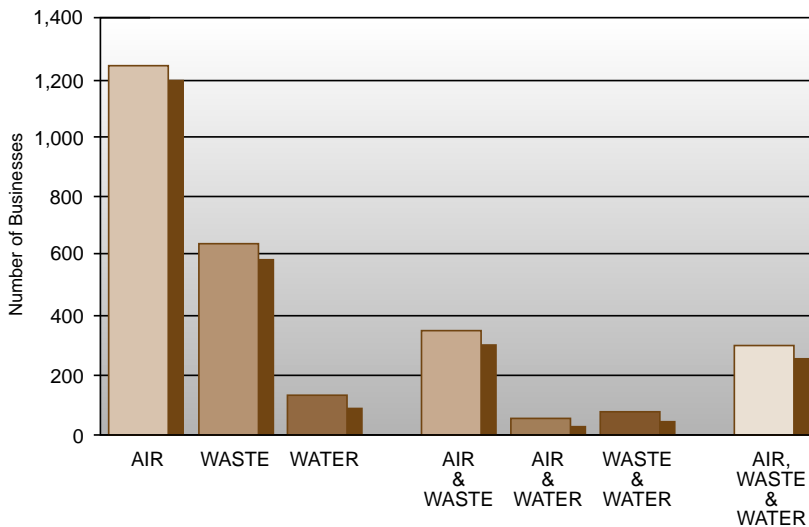
Fiscal Year 1996



The Local Government Assistance Office provided technical support and other information in response to 652 requests from cities, counties, and other governmental entities. The office provides help with permit applications, public meetings, and other environmental program needs.

and speed. The TNRCC is working with the EPA to consolidate, streamline, and improve state and federal reporting and application forms that are key to a large percentage of the TNRCC regulated community.

SMALL BUSINESSES ASSISTED - 1996



The Small Business Assistance Program helps small-business owners with environmental needs in air, waste, and water. The program strives to promote environmental quality and economic growth by providing free, confidential assistance.

EXPERTISE AND TECHNICAL SUPPORT

Technical assistance, training, and certification have saved millions, helped ensure compliance, and improved environmental results for businesses, local governments, and citizens. TNRCC programs such as Pollution Prevention and Recycling, Local Government Assistance, and Small Business Assistance are the standard-bearers of these efforts:

■ The TNRCC offers small businesses technical assistance for maintaining air emissions records.

The 16 businesses that took advantage of this assistance in fiscal year 1996 each saved money—

as much as \$7,000—in consultant and preparation costs.

■ Under Texas law, 983 regulated facilities are required to submit pollution prevention plans to the TNRCC. Agency assistance and support in the development of these plans have helped achieve significant reductions. The facilities reported a 20 percent drop in hazardous waste generated from 1993 to 1994. One facility cut waste generation by 63 percent, even while increasing productivity, and lowered the amount of waste shipped off-site for disposal by 88 tons.

AMNESTY PROGRAMS FOR SMALL BUSINESSES

By providing technical support and additional time, amnesty programs have helped achieve long-term compliance and reduced enforcement costs. The amnesty programs have the advantage of avoiding a counterproductive, adversarial approach and are always followed by inspections throughout the affected industry to assess compliance.

During 1996, the TNRCC granted amnesty to businesses in the wood-products industry that may have been out of compliance because they were unaware of requirements on air emissions and proper waste handling. A year-long amnesty period enabled 1,700 companies to achieve compliance without fear of penalties for prior noncompliance. The program also helped businesses save money by avoiding consultant fees.

COMMONSENSE CLEANUP FOR TEXAS

In the past, regulatory agencies have sought to restore contaminated sites to pristine or near-pristine conditions. This unrealistic goal has proven prohibitively expensive and has limited the number of sites that could be restored to usable condition. The TNRCC is developing alternative strategies that will require cleanup based on a site's anticipated use in an affordable, pragmatic fashion that is also protective of human health and the environment.

THE RISK-BASED APPROACH TO CLEANUP

Revisions to the TNRCC's Risk Reduction Program will establish a single set of consistent, science-based standards for pollution cleanup based on the risk to citizens and the environment.

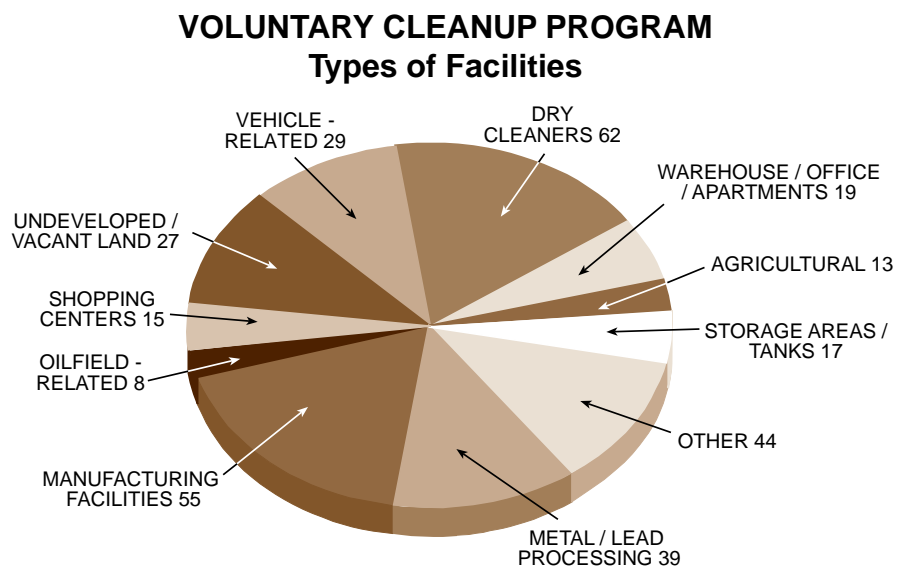
Several program areas within the TNRCC have successfully applied the risk-based approach for years. Since 1993, the agency's PST Division has applied a limited, risk-based approach to the cleanup of leaking underground petroleum storage tanks. This approach has streamlined cleanups, reduced costs, and facilitated property transfer.

ADDRESSING A LEGACY OF POLLUTION

With limited resources available, the TNRCC is committed to cleaning up those sites that pose the greatest risk to human health and the environment.

The Texas Voluntary Cleanup Program, which had 328 participants in 1996, encourages the revitalization of contaminated properties by shielding future lenders and prospective landowners from cleanup responsibility for pollution already on the site. As a result, current owners are willing to clean up sites because the program encourages buyers.

Texas has both federal and state Superfund sites. The federal program, administered by the EPA, uses a formula that considers such factors as the site's proximity to populated areas, potential threat to human health, and severity of contamination to determine whether a site qualifies for listing for federal cleanup. Sites that do not qualify for the



The Texas Voluntary Cleanup Program encourages the cleanup and revitalization of contaminated properties. There were 328 sites participating in 1996.

federal program may be considered for the state program. A brief look at both programs indicates the work that remains to be done:

■ There are presently 28 Texas sites in the federal Superfund program. Although they are distributed statewide, a majority are clustered in the Houston area. Cleanups have been completed at 10 of these sites, with cleanup at the remaining 18 under way.

■ The state Superfund program includes 45 proposed or listed sites, 35 of which are still in the investigation phase. The TNRCC has established an assessment process to identify the most hazardous Superfund sites so that immediate risk-reducing actions can be taken and/or the sites can be evaluated for the federal Superfund list. Meanwhile, the agency has completed verifications of 2,200 additional potential Superfund sites to document current conditions, regulatory status, and eligibility for state Superfund actions.

Closed municipal solid waste landfills present another challenge to the state. Many facilities have shut down because they could not meet new federal requirements. In some cases, old landfills have become the subject of cleanup or enforcement actions, particularly when economic and population growth have resulted in development occurring near these landfills, increasing human exposure to potentially hazardous materials.

In addition, illegal dumping continues to be a growing problem in many parts of Texas, particularly in rural areas. A recent TNRCC study on illegal dumping in 32 counties along the Texas-Mexico border found 1,247 illegal dumps cleaned up by local governments, with more than 20,000 illegal ones remaining.

To help control illegal dumping and related violations, the TNRCC's Solid Waste Grants Program provides funds for local enforcement programs through the councils of governments (COGs). In fiscal year 1996, 35 local enforcement grants were awarded for a total of \$1,271,906.

Since 1993, the TNRCC's Site Assistance Visit and Permanent Pollution Prevention Programs have helped Texas facilities to:



Reduce their hazardous waste generation by 34,600 tons.



Cut their release of air pollutants by 176,000 pounds.



Conserve 315 million gallons of water.



Save \$22 million each year.

PREVENTION AND RECYCLING: STOPPING POLLUTION BEFORE IT HAPPENS

The TNRCC emphasizes state and federal laws that encourage the proper management of waste through source reduction, reuse, and recycling. Rather than simply imposing compliance costs, these approaches offer businesses, industries, and local governments opportunities to cut expenses and develop new sources of income by recycling usable materials:

■ The TNRCC's Site Assistance Visit Program and Permanent Pollution Prevention Program (P4) help identify pollution prevention and recycling opportunities. Since 1993, these programs have worked with 226 Texas facilities to save a total of \$22 million in

operating or disposal costs and reduce hazardous waste by 34,600 tons and ozone-depleting emissions by more than 70 tons.

■ **CLEAN CITIES 2000** provides technical assistance and public recognition to municipalities that develop a comprehensive environmental program to reduce their waste by 50 percent by the year 2000. In 1995, there were 63 **CLEAN CITIES 2000** communities. These communities diverted 363,537 tons of waste from their landfills to recycling programs and saved \$10 million in avoided disposal costs. The city of Plano, for example, has more than doubled the amount it recycles since joining the program in 1991, and now recycles more than 10,500 tons of materials annually.

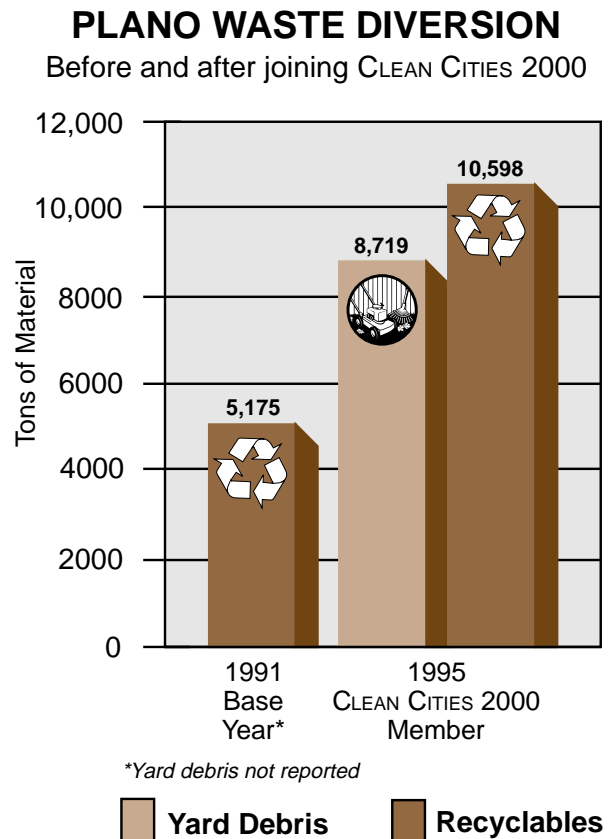
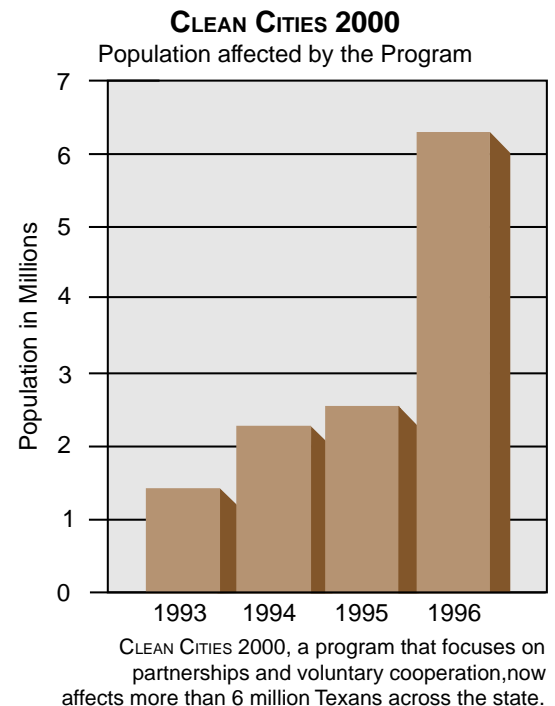
■ **CLEAN INDUSTRIES 2000**, a voluntary hazardous waste reduction initiative (see charts on page 13), has enrolled 147 industrial facilities that have pledged to cut in half their generation of hazardous waste, release of toxic chemicals, or both by the year 2000. From 1992 to 1994, participants reduced their hazardous waste generation by 15 million tons and their toxic chemical releases by 88 million pounds.

■ The Recycling Market Development program works to develop and expand Texas markets for recyclable materials through publications, seminars, and training. More than 20,000 private-sector jobs in Texas involve processing recyclable materials and manufacturing recycled-content products. In fiscal year 1996, more than \$2.8 billion was added to the state's economy through recycling.

■ In August 1996, the TNRCC established the first Solid Waste Assistance Partnership with the city of Big Spring. SWAP provides comprehensive technical and managerial assistance to communities seeking to initiate or improve recycling and waste reduction programs.

■ The number of used-oil collection centers and the amount of used oil collected from households for recycling has increased significantly across Texas. A total of 4.5 million gallons of used oil was collected in calendar year 1995 (including 1.5 million gallons from households), a 221 percent increase over 1994.

■ The TNRCC Texas Cleanup Program provides information and assistance for community collection and cleanup efforts to reduce waterway litter, household hazardous waste, and rural/agricultural chemical wastes. In fiscal year 1996, 44,238 volunteers and participants collected 27,206 auto tires, 9,394 auto batteries, 498,156 pounds of hazardous paint, and 513 tons of litter and recyclables from lake and river cleanups.



The diversion of 19,317 tons (including yard debris and recyclable material) in 1995 saved the city of Plano, a **CLEAN CITIES 2000** member, more than \$400,000 in disposal costs.

CLEAN INDUSTRIES 2000

Members by Area



CLEAN INDUSTRIES 2000, a voluntary hazardous waste reduction program, includes 147 facilities that sponsor more than 515 community environmental projects and participate in more than 152 citizen communication programs.

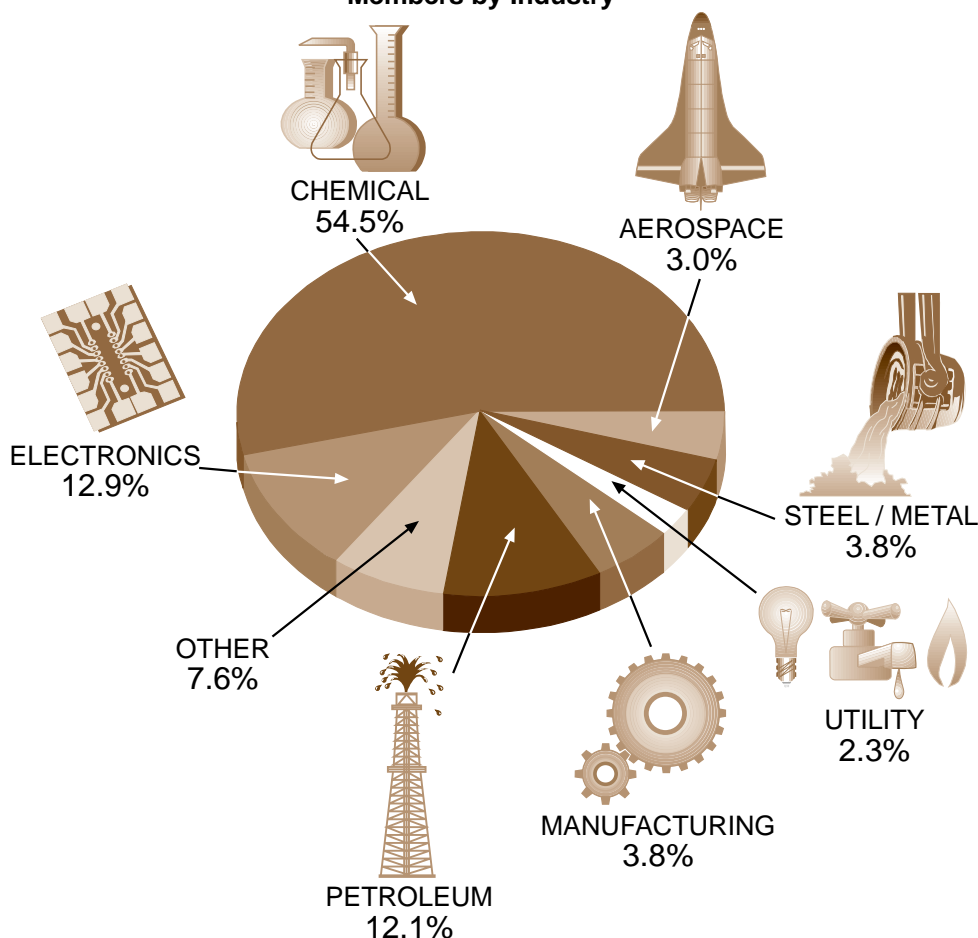
INCENTIVES FOR POLLUTION PREVENTION

Market-based incentives to encourage pollution prevention provide an alternative to the traditional regulatory approach. An example of this is the Air Emissions Reduction Credit Organizations. AERCOs establish a clearinghouse of available emissions credits for new and expanding businesses. Many companies have deposited their surplus emission reductions in these banks.

Another TNRCC effort to encourage market-driven approaches to waste management is the Resource Exchange Network for Eliminating Waste (RENEW). This program seeks to match companies that have materials to recycle with companies that can use those materials. Since 1988, RENEW has helped companies reuse or recycle 660 million pounds of materials, save \$2 million in disposal costs, and produce \$441,000 in sales of surplus materials.

CLEAN INDUSTRIES 2000

Members by Industry



Members of CLEAN INDUSTRIES 2000 come from all industrial sectors. By focusing efforts on source reduction and waste minimization, they are achieving lower environmental costs and a cleaner future for Texas.

ORGANIZING FOR COST-EFFECTIVE STEWARDSHIP OF HUMAN AND NATURAL RESOURCES

The TNRCC began making a number of organizational changes in 1996 to implement regulatory flexibility, streamline requirements, and expand technical assistance. The agency's goals include consolidating functions to achieve more efficient use of staff resources, uniformity of standards, and "one-stop shopping" for the regulated community.

REDIRECTING BUDGET GOALS

The TNRCC is funded by three sources: fees and other collected revenues, the General Revenue Fund appropriated by the state legislature, and federal funds. General revenue funding to the agency has declined over the last decade, primarily affecting the agency's water program, which has depended on state appropriations for 40 percent of its funding. This decrease has led the TNRCC to re-examine spending priorities and adjust overall performance measures and budget goals. The agency is focusing resources on functions and activities where investment will yield the greatest results.

ESTABLISHING FUNCTIONAL PERFORMANCE GOALS

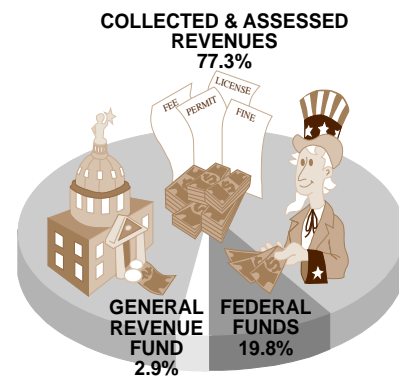
The TNRCC has set goals, strategies, and performance measures for fiscal year 1997 that reflect a transition away from an operational structure organized by medium (air, water, or waste) toward a unified approach organized by functions such as permitting, enforcement, and rule-making. A functional organization will allow the agency to maximize resources, provide greater consistency, and achieve greater regulatory streamlining.

REORGANIZATION AND CONSOLIDATION

To improve consistency and the use of personnel, the agency combined air, water, and waste enforcement staff into a single enforcement division. This consolidation allows for a streamlining of enforcement so that the agency's overall enforcement effort can be expanded and resources better targeted toward the most frequent problems and repeat offenders.

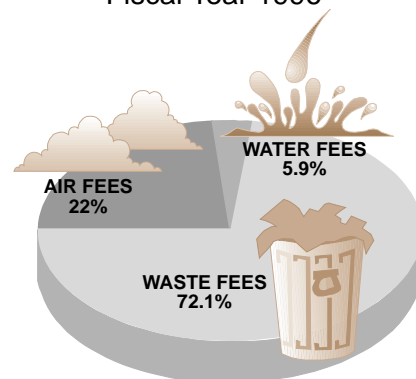
To expand the agency's ability to handle citizen concerns and encourage compliance, the TNRCC has transferred 25 full-time employees to the 15 regional

APPROPRIATION AUTHORITY Fiscal Year 1996



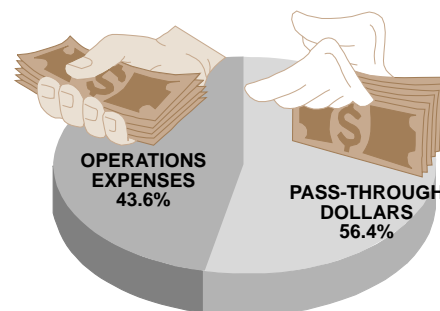
Appropriations for FY96 are \$429.1 million, including \$12.4 million from the general revenue fund, \$84.9 million from federal funds, and \$331.8 million from fees and other revenues assessed and/or collected by the agency.

FEE REVENUE BY MEDIUM Fiscal Year 1996



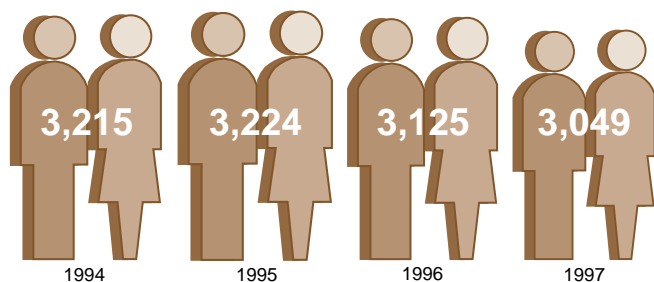
The TNRCC forecasts and monitors more than 140 different fees, totaling \$331.8 million in FY96.

OPERATIONS vs. PASS-THROUGH BUDGET Fiscal Year 1996



The FY96 operating budget of \$408.6 million includes \$178.0 million for operations (salaries, supplies, utilities, and other expenses). The FY96 pass-through budget of \$230.6 million includes contracts, reimbursements, and grants.

FULL-TIME EMPLOYEES



Recent reductions in the number of full-time employees reflect the TNRCC's efforts to streamline operations while preserving our ability to fulfill our mission.

offices to focus attention on technical assistance and facility inspections and to improve agency response time to complaints.

The agency will continue consolidation of program areas along functional lines during fiscal year 1997. A first step will be to merge permitting by medium. This would mean, for instance, a combined permitting division for municipal solid waste, hazardous waste, and low-level radioactive waste.

Although the TNRCC's responsibilities continue to increase, streamlining efforts nonetheless have enabled the agency to reduce the total number of employees without reductions in customer service. TNRCC staffing totals approximately 3,125 budgeted full-time employees. This represents a reduction of nearly 100 employees from the 1995 level.

THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

The TNRCC is charged with protecting our state's natural resources in a manner that is compatible with population and economic growth. The agency pursues goals that every Texan supports—clean air, clean water, and safe management of waste with an emphasis on pollution prevention. The TNRCC's efforts in consolidating, streamlining, and building partnerships will enable the state to enter a new era of environmental protection.

Annual Report Staff

Andy Saenz

Director, Agency Communications

Russ Baier

Director, Policy Research

Renee Carlson

Director, Publishing

Carlos Farquhar Greth

Editor

Bill Crimm

Art Director

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
P.O. Box 13087, Austin, Texas 78711-3087
512-239-1000
TNRCC Environmental Information Center
1-800-64-TEXAS

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